

## CLAIMS

The invention is claimed as follows:

1. A fluorescent lamp comprising:

a base;

5 a plurality of luminous tubes, each of the luminous tubes having:

(a) a first curvature forming a bend defining a U-shape;

(b) a plurality of ends adjacent to one another;

(c) a middle region positioned between the bend and the ends;

and

10 (d) a second curvature which offsets the middle region from the bend and the ends;

a bridge connection connecting each of the luminous tubes to at least one of the other luminous tubes;

an electronic ballast electrically connected to the luminous tubes; and

15 a mounting member connected to the base, the mounting member holding the luminous tubes in such a position so that:

(a) the ends of each of the luminous tubes are adjacent to the ends of another one of the U-shaped luminous tubes; and

(b) the bend of each of the luminous tubes is adjacent to the bend of another one of the U-shaped luminous tubes.

2. The fluorescent lamp of Claim 1, which includes a cover member connected to the base, the mounting member being included within the cover member.

25 3. The fluorescent lamp of Claim 1, wherein each of the luminous tubes has a finger-shape defined by the second curvature.

4. The fluorescent lamp of Claim 1, wherein the luminous tubes form a Chayote-like shape when held by the mounting member.

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5. A fluorescent lamp comprising:  
a base;  
a plurality of luminous tubes, each of the luminous tubes having:  
5 (a) a first curvature defining a bend;  
(b) a plurality of ends adjacent to one another;  
(c) a middle region positioned between the bend and the ends;  
and  
(d) a second curvature which offsets the middle region from the  
bend and the ends;  
10 a bridge connection connecting each of the luminous tubes to at least one  
of the other luminous tubes;  
an electronic ballast electrically connected to the luminous tubes; and  
a cover member connected to the base, the cover member holding the  
luminous tubes in such a position so that:  
15 (a) the ends of each of the luminous tubes are adjacent to the  
ends of another one of the luminous tubes;  
(b) the bend of each of the luminous tubes is adjacent to the  
bend of another one of the luminous tubes;  
(c) each of the middle regions of the luminous tubes is opposed  
20 to another one of the middle regions so as to define a perimeter of an inner space;  
(d) a distance separates the bends of the luminous tubes from  
the ends of the luminous tubes, the distance defining a length of the inner space; and  
(e) a gap separates each of the luminous tubes, the gap being  
greatest at the middle regions.  
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6. The fluorescent lamp of Claim 5, wherein each of the luminous tubes has a  
finger-shape defined by the second curvature.
7. The fluorescent lamp of Claim 5, wherein the luminous tubes form a  
30 Chayote-like shape when held by the mounting member.

8. The fluorescent lamp of Claim 5, wherein the electronic ballast includes a current limiting inductor, and the inner space includes a cavity for placement of the current limiting inductor.

5 9. The fluorescent lamp of Claim 8, wherein the electronic ballast includes a printed circuit board having a first side facing the base and a second side facing the inner space, the current limiting inductor being connected to the second side.

10 10. The fluorescent lamp of Claim 5, wherein the gaps have dimensions sufficient to facilitate transmission of light from the luminous tubes.

11. The fluorescent lamp of Claim 5, wherein the gaps have dimensions sufficient to facilitate transfer of heat from the luminous tubes.

15 12. The fluorescent lamp of Claim 5, wherein each of the luminous tubes has a diameter in the range of eight millimeters to eleven millimeters.

13. The fluorescent lamp of Claim 5, wherein a quantity of the luminous tubes is in the range of two to five.  
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14. The fluorescent lamp of Claim 5, wherein the fluorescent lamp has a power of less than twenty-four watts.

15. A compact fluorescent lamp having an ultra-short and Chayote-like configuration, the compact fluorescent lamp comprising:
- a base having a plurality of threads;
  - 5 an upper cover connected to the base;
  - a lower cover connected to the upper cover;
  - a luminous tube connected to the lower cover, the luminous tube being formed by bridge connection of a plurality of unit luminous tubes, each of the unit luminous tubes having: (a) a bend defining a U-shape; and (b) a curvature defining a
  - 10 finger-shape, the unit luminous tubes being disposed so as to form a shape of Chayote for the luminous tube; and
  - an electronic ballast electrically connected to the luminous tube.
16. The compact fluorescent lamp of Claim 15, wherein each of the unit
- 15 luminous tubes has a diameter in a range of eight millimeters to eleven millimeters.
17. The compact fluorescent lamp of Claim 15, wherein the configuration of the luminous tube has a profile which substantially conforms to a longitudinal section of Chayote.
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18. The compact fluorescent lamp of Claim 15, which includes a quantity of the luminous tube units in a range of two to five.

19. A method for manufacturing a compact fluorescent lamp comprising:
- (a) providing a base having a plurality of threads;
  - (b) providing a plurality of luminous tubes each of which has a plurality of ends and a middle region;
  - 5 (c) forming a bend in each of the luminous tubes thereby causing the luminous tubes to have a U-shape;
  - (d) forming a curvature in each of the luminous tubes thereby causing the middle region to be offset from a plane passing through the ends and the bend;
  - (e) coupling a mounting member to the base;
  - 10 (f) coupling the ends of the luminous tubes to the mounting member in such a fashion that:
    - (i) the ends of each of the luminous tubes are positioned adjacent to the ends of another one of the luminous tubes;
    - (ii) the bend of each of the luminous tubes is adjacent to the  
15 bend of another one of the luminous tubes.
    - (iii) each of the middle regions of the luminous tubes is opposed to another one of the middle regions so as to define a perimeter of an inner space;
    - (iv) a distance separates the bends of the luminous tubes from the ends of the luminous tubes, the distance defining a length of the inner space; and
    - 20 (v) a gap separates each of the luminous tubes, the gap being greatest at the middle regions;
    - (g) using a bridge connection to connect each of the luminous tubes to at least one of the other luminous tubes;
    - (h) electrically connecting an electronic ballast to the luminous tubes,  
25 the electronic ballast having a current limiting inductor; and
    - (i) positioning at least a portion of the current limiting inductor within the inner space.
20. The method of Claim 19, wherein step (d) includes the step of causing each  
30 of the luminous tubes to have a finger-like shape.

21. The method of Claim 20, wherein step (f) includes the step of causing the luminous tubes to form a Chayote-like shape.